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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,626

09/16/2003

Zoran Minevski

LYNN/0173.C

1915

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STREETS & STEELE  
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EXAMINER

BUMGARNER, MELBA N

ART UNIT

PAPER NUMBER

3732

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/663,626

Applicant(s)

MINEVSKI ET AL.

Examiner

Melba Bumgamer

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-103 is/are pending in the application.
- 4a) Of the above claim(s) 41-50 and 68-101 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40, 51-67, 102 and 103 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/4/03, 1/8/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Invention I in the reply filed on October 24, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 41-50 and 68-101 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1-40 and 67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the limitation the titanium content of the metal is less than 98 percent titanium, when the metal is selected from other than titanium. In claims 18, 20, 21, 29, 30, and 67, it is unclear that they are limited to the implant. Recitation of "the external surface" in claim 31, "the human or animal" in claim 32 lack sufficient antecedent basis. In claim 35, it is unclear which is "the surface" that is referred to. In claims 35-39, it is unclear what surface comprises the depth as claimed.

***Claim Objections***

3. Claims 4-6, and 9 are objected to because of the following informalities: improper preamble. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 9-12, 15-17, 20-22, 24-26, 28, 29, 51-57, 62, 63, 67, 102, and 103 are rejected as understood, under 35 U.S.C. 102(b) as being anticipated by Rosenberg et al. (5,185,075). Rosenberg et al. disclose a method for improving the biocompatibility of surgical implant or component (column 5 line 15) comprising anodically treating a surface (anodic oxidation) of a surgical implant in substantially calcium-free solution of a phosphorus-containing compound, the surface comprises a metal of titanium alloy, titanium content of less than 98% (column 4 line 44, column 5 line 2). The solution is an electrolyte solution of phosphoric acid. The solution has a temperature of about 23 C. The electrical potential is controlled at about 100 volts. The method comprises removing oxide films from the surface of the component before anodically treating (column 8 line 15).

6. Claims 1, 3-5, 9-11, 15-22, 29, 51-55, 62-65, 67, and 102 are rejected as understood, under 35 U.S.C. 102(b) as being anticipated by Haszmann et al. (5,354,390). Haszmann et al. disclose a method for improving the biocompatibility of surgical implant or component comprising anodically treating a surface (anodic oxidation) of a surgical implant in substantially

calcium-free solution of a phosphorus-containing compound, the surface comprises a metal of titanium alloy. The solution is an electrolyte solution of an aqueous solution of disodium hydrogen phosphate. The electrical potential is controlled at about 105-125 V. The method comprises removing oxide film or etching the surface of the component before anodically treating.

7. Claims 53-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishizawa (5,478,237). Ishizawa discloses a method of treating a metallic surgical implant or component comprising performing anodic oxidation on a surface of titanium alloy, the surface disposed in an aqueous phosphoric acid. The anodic oxidation at controlled voltage between 10 and 600 V and the surface takes on gold color.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13, 14, 18, 19, 23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg et al. Rosenberg et al. disclose a method that shows the limitations as described above and the solution temperature to be maintained at optimum for the system. It would have been obvious to one of ordinary skill in the art at the time the invention was made as to specific temperature range of the solution as it dependent upon the anodizing process. It would have been obvious to one of ordinary skill in the art as to the specific time of the duration of anodizing as it is dependent upon the process such as the concentration of solution, thickness

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of the film produced. It would have been obvious to one of ordinary skill in the art to have a cathode in the electrolytic solution. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

10. Claims 30-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg et al. in view of Ishizawa. Rosenberg et al. disclose a method that shows the limitations as described above; however, they do not show a dental implant. Ishizawa teaches a method relating to implants orthopedic and dental. It would have been obvious to one of ordinary skill in the art at the time the invention was made as to having a dental implant for bone substitute and reinforcement in view of Ishizawa. Ishizawa teaches porous surface of sintered metal particles (column 4 line 23). It would have been obvious to one of ordinary skill in the art to have the surface of Ishizawa in order to improve retention of implant in bone tissue in view of Ishizawa. Ishizawa shows oxidation film depth of more than 1 micron. It would have been an obvious matter of choice as to the specific depth less than a micron. Ishizawa teaches depositing hydroxyapatite over the anodically treated surface.

11. Claims 6-8 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haszmann et al. Haszmann et al. disclose a method that shows the limitations as described above; however, they do not show phosphate containing compound of phosphoric acid. It would have been an obvious matter of choice to one of ordinary skill in the art at the time the invention was made to use phosphoric acid for phosphate concentration in aqueous solution.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner  
Primary Examiner